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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/730,887

12/10/2003

Noriko Sakashita

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EXAMINER

EGWIM, KELECHI CHIDI

ART UNIT

PAPER NUMBER

1713

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/730,887

Applicant(s)

SAKASHITA ET AL.

Examiner

Dr. Kelechi C. Egwim

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/530,202.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 11/29/2006 has been entered.

### ***Claim Rejections - 35 USC § 102/103***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-5 are anticipated under 35 U.S.C. 102(b) by or, in the alternative, unpatentable under 35 U.S.C. 103(a) over Tuzuki et al. (USPN 4,179,481), Matsuba et al. (US 5,093,420), Matsuba et al. (EP 392 465) or GB 1378434.

In col. 1, lines 10-12 and 55-68 and col. 2, lines 1-16, Tuzuki et al. teach two-stage polymer process additives to vinyl chloride resins, in concentrations of 0.1 to 100 parts per 100 parts of PVC, obtained by polymerizing

1 to 50 parts by weight of a monomer (II) comprising

0 to 40 % by weight of methyl methacrylate, and

51 to 100 % by weight of a monomer selected from a methacrylate ester, excluding methyl methacrylate, or an acrylate ester,

in the presence of a latex of a (co)polymer obtained by polymerizing in emulsion 99 to 50 parts by weight of a monomer mixture (I) comprising

85.71 to 100% by weight of methyl methacrylate,

the balance of other monomers except methacrylate ester,

wherein the total amount of (I) and (II) is 100 parts by weight.

Further, in col. 3, lines 35-45 and col. 6, lines 4-9, Tuzuki et al. teach that it is advantageous for the final two-stage (composite) polymers to preferably have specific viscosities of at least 0.5 in benzene, which corresponds to preferred specific viscosities of **at least** about 0.24 in chloroform (See Table 1 in the declaration filed on September 10, 2002 in appellant's parent application 09/530,202). Additives such as foaming agents (blowing agents) may be added to the vinyl chloride resins.

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Matsuba et al. [(US' col. 2, lines 42-68 and col. 3, lines 1-12) or ( EP' page 3, lines 10-21)] teach two-stage polymer process additives to vinyl chloride resins, in concentrations of 0.1 to 30 parts per 100 parts of PVC, obtained by polymerizing

5 to 40 parts by weight of a monomer (B) comprising

0 to 40 % by weight of methyl methacrylate or other vinyl monomers, and

20 to 80 % by weight of a monomer selected from a methacrylate ester, excluding methyl methacrylate, or an acrylate ester,

in the presence of a latex of a (co)polymer obtained by polymerizing in emulsion 60 to 95 parts by weight of a monomer mixture (A) comprising

50 to 95% by weight of methyl methacrylate,

5 to 50 % by weight of at least one C<sub>2</sub> to C<sub>8</sub> methacrylate ester

(excluding methyl methacrylate), and

and 0 to 20 % by weight of a vinyl monomer copolymerizable

therewith,

wherein the total amount of (A) and (B) is 100 parts by weight, and

wherein the final two-stage polymer has a specific viscosity of 1 or more in benzene, which corresponds to preferred specific viscosities of **at least** about 0.3 in chloroform (See Table 1 in the declaration filed on September 10, 2002 in appellant's parent application 09/530,202).

Matsuba et al. [(US' col. 6, lines 60-65) or ( EP' page 5, lines 39-41)] further teach that additives such as foaming agents (blowing agents) may be added to the vinyl chloride resins.

In page 2, lines 60-86 and the examples, GB 1378434 teach two-stage polymer process additives to vinyl chloride resins, in concentrations of 0.1 to 100 parts per 100 parts of PVC, obtained by polymerizing

1 to 50 parts by weight of a monomer (II) comprising

80 to 100% of a monomer selected from a methacrylate ester,

excluding methyl methacrylate, or an acrylate ester,

0 to 20 % by weight of other copolymerizable monomers,

in the presence of a latex of a (co)polymer obtained by polymerizing in

emulsion 99 to 50 parts by weight of a monomer mixture (I) comprising

over 50% of methyl methacrylate,

the balance of other monomers except methacrylate ester,

wherein the total amount of (I) and (II) is 100 parts by weight, and

Further, in page 2, lines 107-111, and page 3, lines 94-98, GB 1378434 teaches that the final two-stage polymers should advantageously have specific viscosities of at least 0.5 in benzene, which corresponds to preferred specific viscosities of **at least** about 0.24 in chloroform (See Table 1 in the declaration filed on September 10, 2002 in appellant's parent application 09/530,202). Additives such as foaming agents (blowing agents) may be added to the vinyl chloride resins.

While Tuzuki et al., Matsuba et al. or GB 1378434 do not expressly teach the specific viscosity of the seed or first stage latex (co)polymers, it is reasonable that the

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viscosity of the seed or first stage latexes of the prior art would possess the presently claimed specific viscosities given the composition of the polymers are essentially the same as in the claimed composition. The USPTO does not have at its disposal the tools or facilities deemed necessary to make physical determinations of the sort.

In any event, the specific viscosity of the present final stage processing aid is taught in the prior art to be at least 0.5 in benzene, which corresponds to specific viscosities of **at least** about 0.24 in chloroform. Therefore, the prior art final stage processing aid is the same as the presently claimed final stage processing aid. The patentability of the product does not depend on its method of production, so an otherwise old composition is still not patentable regardless of any new or unexpected properties or process for preparing it. In re Fitzgerald et al , 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP § 2112 - § 2112.02. See In re Marosi, 218 USPQ 289 (Fed. Cir. 1983) and In re Thorpe, 227 USPQ 964 (Fed. Cir. 1985). See also MPEP § 2113. In re Spada, 911 F.2d 705,709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Even if assuming that the prior art references do not meet the requirements of 35 U.S.C. 102, it would still have been obvious to one of ordinary skill in the art, at the time the invention was made, to arrive at the same inventive composition because the disclosure of the inventive subject matter appears within the generic disclosure of the prior art.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kelechi C. Egwim whose telephone number is (571) 272-1099. The examiner can normally be reached on M-T (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KCE KELECHI C. EGWIM PH.D.  
PRIMARY EXAMINER

